Server Functions

This chapter applies to the Entire Screen Builder user exits. The server functions are only available for the GUI viewers. The user-exit functions are provided by the user and are called by the viewer.

The following topics are provided:

- NSWBefore

- NSWAfter

- Nswexp.h File

NSWBefore

This function is called by the viewer before the screen received from the legacy application is processed by the viewer.

All fields received from the legacy application are passed to this function which can process and modify the contents of these fields. From this function, it is also possible to call external applications with the fields received (for example, a print application or Microsoft Office).

This function can decide whether the received screen has to be shown or not by returning NSWEXP_SHOW (1) or NSWEXP_NOSHOW (0). If NSWEXP_NOSHOW is returned, the viewer sends an ENTER to the legacy application and waits to receive the next screen.

Format

```
WORD FAR PASCAL NSWBefore ( WORD fields, SCREENFIELD FAR * field )
```

Input Parameters

WORD fields	Number of received input and output fields.
SCREENFIELD FAR * field	Array of structures containing the fields received from the legacy application.

Return Values

NSWEXP_SHOW	The screen will be shown.
NSWEXP_NOSHOW	The screen will not be shown.

NSWAfter

This function is called by the viewer before the fields are sent to the legacy application.

All fields are passed to this function which can process and modify the data strings typed by the end-user. From this function, it is also possible to call external applications with the fields received (for example, a print application or Microsoft Office).

Format

```
void FAR PASCAL NSWAfter ( WORD fields, SCREENFIELD FAR * field )
```

Input Parameters

`WORD fields`	Number of received input and output fields.
`SCREENFIELD FAR * field`	Array of structures containing the input and output fields before sending them to the legacy application.

Return Values

No return values.

Nswexp.h File

The *Nswexp.h* file (see below) is a header file that must be included in the C or C++ source code of the user exit functions on the server side. It contains all defines and function prototypes that can be used in the user exit functions.

This header file is delivered with Entire Screen Builder. You can find it in the program folder *\Entire Screen Builder 5\samples\sampleuserexit*.

Note:
This folder also contains a C source file with a framework for the user-exit functions. You can use this file to write your own program code. The file in this folder with the extension *def* can be used to build the DLL.

```
/******************************************************************************
** FILE:            NSWEXP.H
**
** DESCRIPTION:     Header file for Entire Screen Builder User-exit DLLs
**
** VERSION:         4.1.1.0
**
** (C) Copyright Software AG, 2000
**
*/

#ifndef _NSWEXP_INCLUDED
#define _NSWEXP_INCLUDED

/******************************************************************************
** This is the structure that defines screen fields
*/
#pragma pack( push ) /* Save current structure alignment (Visual C++ 4.2) */
#pragma pack(4)      /* Switch to 4-byte structure alignment (Visual C++ 4.2) */
typedef struct tagSCREENFIELD
{
  char szText[81];   /* screen field content */
  WORD nLong;        /* screen field length */
  WORD nColumn;      /* screen field column */
  WORD nRow;         /* screen field row */
  WORD nType;        /* screen field type (see below) */
} SCREENFIELD;
#pragma pack(pop)    /* Restore previous structure alignment (Visual C++ 4.2) */

/******************************************************************************
** Values for SCREENFIELD.nType field
*/
#define TYPE_INPUT  0 /* Input screen field */
#define TYPE_OUTPUT 1 /* Output screen field */

/******************************************************************************
** These are the types for the exported user-exit DLL functions. There should
** be two functions
**
** WORD FAR PASCAL NSWBefore( WORD fields, SCREENFIELD FAR * field )
** void FAR PASCAL NSWtAfter( WORD fields, SCREENFIELD FAR * field )
**
*/
#ifdef _cplusplus
  extern "C" {
#endif

/* Pointers to functions types definitions */
typedef WORD (FAR PASCAL *NSWBEFOREPROC)( WORD fields, SCREENFIELD FAR * field );
typedef void (FAR PASCAL *NSWAFTERPROC)( WORD fields, SCREENFIELD FAR * field );

/* Function declarations */
WORD FAR PASCAL NSWBefore( WORD fields, SCREENFIELD FAR * field );
void FAR PASCAL NSWAfter( WORD fields, SCREENFIELD FAR * field );

#ifdef _cplusplus
  };
#endif

#endif /* #ifdef _NSWEXP_INCLUDED */
```